

CLAIMS:

1. A fluid level detector and alarm apparatus for use in a liquid receiving open-top vessel, comprising:
a housing being connectable to the vessel so
5 as to be positioned within the vessel, the housing being adapted to receive a power source therein;
a sound emitter positioned within the housing, the sound emitter being actuatable to emit a sound alarm;
10 a circuit within the housing for interconnecting the sound emitter to the power source, the circuit having opposed ends emerging out of the housing; and
floater means having a conductive member
15 thereon and being operatively connected to the housing so as to be displaceable with respect to the housing to a contacting position in which the conductive member contacts the opposed ends of the circuit to actuate the sound emitter;
20 whereby the floater means is displaced to the contacting position by buoyant forces exerted on the floating means as a result of the fluid level in the vessel reaching the predetermined level, such that a sound alarm is emitted.
- 25 2. The fluid level detector and alarm apparatus according to claim 1, further comprising a switch in the circuit, the switch being displaceable to an on position for the fluid level detector apparatus to be activated.
- 30 3. The fluid level detector and alarm apparatus according to claim 2, further comprising a light source in the circuit, the light source being turned on when the fluid level detector apparatus is activated.

4. The fluid level detector and alarm apparatus according to claim 3, further comprising a controller in the circuit, the controller being adapted to measure a power level of the power source, and actuate the light
5 source in a signalling mode to indicate a low power level.

5. The fluid level detector and alarm apparatus according to claim 1, wherein the floater means has a floater and a floater housing operatively connecting the
10 floater to the housing.

6. The fluid level detector and alarm apparatus according to claim 5, wherein the conductive member is a conductive plate on a top surface of the floater, with the opposed ends of the circuit being positioned on a
15 bottom end of the housing.

7. The fluid level detector and alarm apparatus according to claim 5, wherein the floater housing is releasably connected to the housing unit.

8. A fluid level detector and alarm apparatus for
20 use in a liquid receiving open-top vessel, comprising:

a housing being connectable to the vessel so as to be positioned within the vessel, the housing being adapted to receive a power source therein;

a sound emitter positioned within the housing,
25 the sound emitter being actuatable to emit a sound alarm;

a circuit within the housing for interconnecting the sound emitter to the power source, the circuit being triggered by the fluid level of the
30 vessel reaching a predetermined level such that a sound alarm is emitted by the sound emitter; and

a controller in the circuit, the controller being adapted to measure a power level of the power source, and actuate an indicator to indicate a low power level.

- 5 9. The fluid level detector and alarm apparatus according to claim 8, further comprising a switch in the circuit, the switch being displaceable to an "on" position for the fluid level detector apparatus to be activated.
- 10 10. The fluid level detector and alarm apparatus according to claim 9, further comprising a light source in the circuit, the light source being turned on when the fluid level detector apparatus is activated.
- 15 11. The fluid level detector and alarm apparatus according to claim 10, wherein the indicator is the light source being actuated by the controller in a signalling mode to indicate a low power level.

received by the International Bureau on 25 April 2005 (25.04.05): original claims 1-11 have been replaced by amended claims 1-7 (2 pages).

CLAIMS:

1. A fluid level detector and alarm apparatus for use in a liquid receiving open-top vessel, comprising:

5 a housing being connectable to the vessel so as to be positioned within the vessel, the housing being adapted to receive a power source therein;

a sound emitter positioned within the housing, the sound emitter being actuatable to emit a sound alarm;

10 a circuit within the housing for interconnecting the sound emitter to the power source, the circuit having opposed ends emerging out of the housing;

a floater housing being connected to the housing; and

15 a floater having a conductive member, the floater being received in the floater housing so as to be freely displaceable within the floater housing to a contacting position in which the conductive member contacts the opposed ends of the circuit to actuate the sound emitter;

20 whereby the floater is displaced to the contacting position by buoyant forces exerted on the floater as a result of the fluid level in the vessel reaching the predetermined level, such that a sound alarm is emitted.

2. The fluid level detector and alarm apparatus according to claim 1, further comprising a switch in the circuit, the switch being displaceable to an on position for the fluid level detector apparatus to be activated.

30 3. The fluid level detector and alarm apparatus according to claim 2, further comprising a light source in the circuit, the light source being turned on when the fluid level detector apparatus is activated.

4. The fluid level detector and alarm apparatus according to claim 3, further comprising a controller in the circuit, the controller being adapted to measure a power level of the power source, and actuate the light
5 source in a signalling mode to indicate a low power level.

5. The fluid level detector and alarm apparatus according to claim 1, wherein the conductive member is a conductive plate on a top surface of the floater, with
10 the opposed ends of the circuit being positioned on a bottom end of the housing.

6. The fluid level detector and alarm apparatus according to claim 1, wherein the floater housing is releasably connected to the housing unit.

15 7. The fluid level detector and alarm apparatus according to any one of claims 1 to 6, wherein the floater housing is shaped in a downward taper so as to retain the floater within the floater housing.